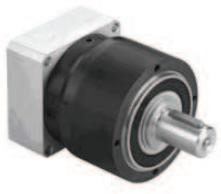
8GP50-120

Technical data



	8GP50-120hh003klmm	8GP50-120hh004klmm	8GP50-120hh005klmm	8GP50-120hh008klmm	8GP50-120hh010klmm	8GP50-120hh009klmm	8GP50-120hh012klmm	8GP50-120hh015klmm	8GP50-120hh016klmm	8GP50-120hh020klmm	8GP50-120hh025klmm	8GP50-120hh032klmm	8GP50-120hh040klmm	8GP50-120hh064klmm	8GP50-120hh100klmm
Gearboxes															
Number of stages	1					2									
Ratio i	3	4	5	8	10	9	12	15	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm][1]	115	155	172	120	95	157	195	172	195		172	195	172	120	95
Max. output torque T_{2max} [Nm][1]	184	248	275.2	192	152	251.2	312	275.2	312		275.2	312	275.2	192	152
Emergency stop torque T_{2estop} [Nm][2]	230	310	344	240	190	314	390	344	390		344	390	344	240	190
No load running torque at 20°C and 3,000 [min^{-1}] [Nm]	0.8	0.7	0.6	0.5				0.4							
Max. average input speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min^{-1}]	2500		2600	3000											
Max. average input speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min^{-1}]	1900			2700	3000	2100	2200	2600	2500	2800	3000				
Max. input speed n_{1max} [min^{-1}]	6500														
Max. backlash j_t [arcmin]	<8					<12									
Reduced backlash j_t [arcmin]	-														
Torsional rigidity C_{t21} [Nm/arcmin]	12					13									
Tilting rigidity C_{2K} [Nm/arcmin]	-														
Max. tilting moment M_{2KMax} [Nm]	-														
Max. radial force for 30,000 h Fr_{max} [N][3]	2150														
Max. radial force for 20,000 h Fr_{max} [N][3]	2500														
Max. axial force for 30,000 h Fa_{max} [N][3]	3000														
Max. axial force for 20,000 h Fa_{max} [N][3]	4000														
Running noise L_{PA} [dB(A)][4]	65														
Efficiency at full load η [%]	96					94									
Min. operating temperature $B_{Tempmin}$ [°C][5]	-25														
Max. operating temperature $B_{Tempmax}$ [°C][5]	90														
Mounting orientation	Any														
Protection class	IP 54														
Weight m [Kg]	7.5					9.7									
Moment of inertia J_1 [$Kgcm^2$]	2.87	1.92	1.6	1.35	1.3	2.65	2.57	2.54	1.76	1.5		1.3			

[1] The entries refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C; depending on the respective motor shaft diameter

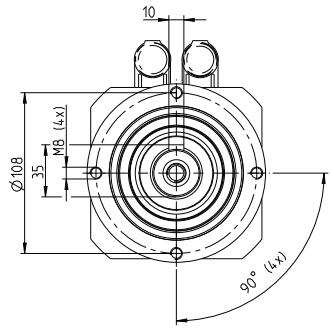
[2] Approved for 1000x

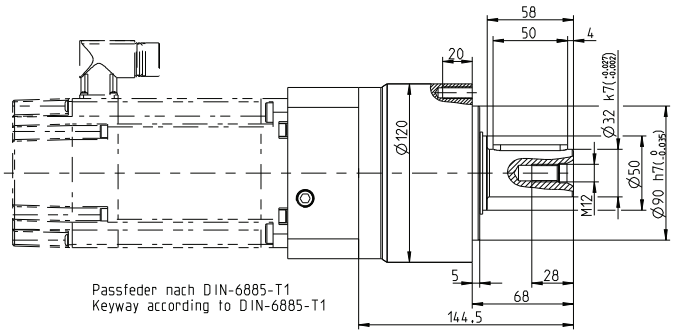
[3] With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C

[4] Noise level at a distance of 1 m; measured at a drive speed of n_1=3000min^{-1} without a load; i=5

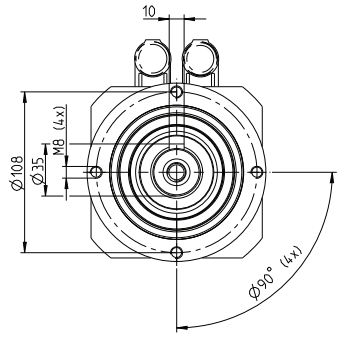
[5] With reference to the middle of the housing surface

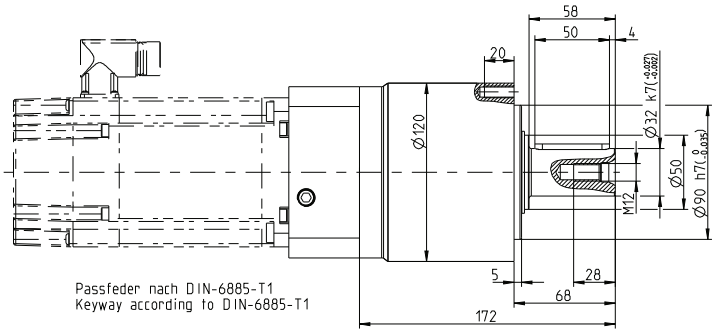
1 stage gearboxes





2 stage gearboxes





Alternative output shaft options

Smooth shaft